



## Supporting content and language integrated learning through technology

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## Supporting content and language integrated learning through technology

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**Abstract.** This paper describes Clilstore and how this tool can support Content and Language Integrated Learning (CLIL), which involves teaching a curricular subject through the medium of a foreign language, as was evidenced through data collected from two surveys conducted with secondary school teachers from various European countries.

**Keywords:** content and language integrated learning, Clilstore, tools for CLIL teachers project.

### 1. Introduction

Content and Language Integrated Learning was recognised as a teaching methodology by the Commission of the European Communities in its Communication No. 449 on Promoting Language Learning and Linguistic Diversity: An Action Plan 2004-2006, published in 2003. In this past decade we have witnessed how CLIL has steadily rooted its teaching principles and is slowly becoming a dominant methodology in all sectors of education that are sensitive to bilingual education. Research and reflective practice literature is currently abundant and CLIL is the focus of an increasing amount of empirical studies proving the methodology's worth. In line with this trend, the EU-funded *Tools for CLIL Teachers* project has developed an online authoring tool to support the implementation of CLIL. This tool, which is known as Clilstore, facilitates being able to automatically link every word in a text to freely available online dictionaries

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in a wealth of languages. Clilstore's features are particularly enhanced when videos and their transcripts are embedded into the system from one of the many streaming video applications currently available. The units created within Clilstore become part of an ever-growing repository for learners and teachers alike.

## **2. Methodology**

### **2.1. Content and language integrated learning**

The EU's policy on multilingualism mentioned above states that CLIL implicates teaching a curricular subject through the medium of a language other than that normally used. The subject can be entirely unrelated to language learning, delivered in a bilingual context, or include a language learning component serving a dual purpose: that of the subject matter and that of a foreign language. CLIL has steadily been on the rise for the past 20 years and this trend is continuing, judging by the amount of literature currently available.

Teachers who adopt the CLIL methodology are specialists in a discipline other than the foreign language. They are by definition proficient speakers of the target language and very often collaborate with language teachers. The crucial factor here is that the learners acquire new knowledge with regard to the subject matter whilst simultaneously practising and acquiring the foreign language. However, it is commonly the content of the curricular subject that determines the types of activities used and the methodologies and teaching approaches to be followed.

### **2.2. Clilstore, Multidict and Wordlink**

Clilstore is a simple-to-use, yet extremely powerful, authoring tool that enables teachers to create materials based on the integration of streaming video embedded from external sources, together with a repository of ready-made materials for teachers and learners alike. The materials currently available in Clilstore amount to 1,133 units, covering all 6 levels (A1 to C2) of the *Common European Framework of Reference for Languages* in 47 different languages.

Clilstore is built on two interconnected tools, that is, Multidict and Wordlink. Both tools can function as stand-alone resources or within Clilstore. Multidict is a dictionary interface allowing quick monolingual or bilingual searches in over 100 language combinations. Wordlink is the software interface that can connect most webpages, word by word, to existing free online dictionaries. It allows users to automatically link any of the words that appear within a text included in a Clilstore

unit to a vast selection of dictionaries, thereby supporting learners when reading online as immediate dictionary consultation is guaranteed.

In Figure 1 we can see the typical layout of a Clilstore unit. The unit belongs to the repository of units for learners of Spanish at a B2 level of proficiency and includes the entire script of a YouTube video describing the features and uses of graphene. The use of Wordlink has automatically associated all of the words in the script to Multidict, thereby linking them to all the available online monolingual and bilingual dictionaries. As we can see in the illustration below, the word “tejidos” (tissues) has been selected; this triggers the Multidict dictionary interface to appear on the right hand side of the screen (default mode). The parameters of the word being looked up can be pictured below: 1) the source language, 2) the target language for translation, and 3) the selected online dictionary. It is not necessary to re-enter the search term in order to switch between dictionaries (Gimeno, Ó Dónaill, & Zygmantaite, 2013).

Figure 1. Sample Clilstore unit

The screenshot displays a Clilstore unit interface. On the left, a video player titled "El grafeno: ¿el material del futuro?" is shown. On the right, the Multidict dictionary interface is active, displaying translations for the word "tejidos". The interface includes a search bar, language selection dropdowns, and a list of dictionaries. Red arrows labeled 1, 2, and 3 point to the source language dropdown (Español), the target language dropdown (English), and the selected dictionary (WordReference) respectively.

### 3. Discussion

In order to validate Clilstore and its integral modules, Multidict and Wordlink, and to determine a) to which extent training courses focusing on the use of Clilstore can become helpful to develop CLIL skills and b) to which extent Clilstore was helpful in achieving this, three members of the *Tools for CLIL Teachers* project participated in a European-wide teacher training course and conducted a survey based on pre-course and post-course opinion questionnaires. In the initial questionnaire, the

questions were geared towards discovering the participant's prior knowledge about CLIL, their readiness to adopt such a methodology and their attitude towards using ICT in their teaching practice. This survey unveiled a general lack of awareness regarding the theories underlying CLIL and the practicalities involved in adopting this methodology; lack of knowledge as to ICT resources that are available to support the teacher and a tendency to use practices firmly grounded on a teacher-centred approach. The final survey intended to collect data regarding their level of confidence in applying a number of CLIL attributes in their teaching, the degree to which they thought CLIL relies on ICT, and their perception of learner versus teacher-centred approaches, after having completed the two-week course.

The participants consisted of 30 secondary school teachers from nine different European countries teaching subjects ranging from Electronics, Telecommunications, Computing and ICT to Geography, History, Science, Music and Art. They all held certificates accrediting a B2 level or higher of English proficiency.

Regarding their opinion of the CLIL concept in general after completing the course, the entire class was favourable to applying this methodology in their teaching. The following are a few comments that we think are worth mentioning because they summarise the overall impression:

- “The CLIL methodology is useful to improve the students’ motivation in learning because it involves the use of different means of communication and it integrates a wide variety of pedagogical methodologies. The lessons built in this way are more interesting for students”.
- “[CLIL] is a new methodology based on multimodality and scaffolding, which is very useful”.
- “In my opinion CLIL is a good method to transfer content and language, even if you have to create all your lessons and it is a big job”.
- “I think CLIL is a very ambitious concept. If it works, it is perfect for the students but I think it takes a lot of time for CLIL to work with students, and it takes a lot of time for teachers to prepare lessons”.

From these comments we can elicit several conclusions that were, in general, common to the whole group: a) teachers perceive CLIL as a means of motivation for students because it involves using multiple approaches to teaching, b) it assimilates

multimodality in learning, and c) it caters for a variety of learning styles. As can be seen, the main drawback is related to the amount of extra work and time that has to be invested in preparing suitable lessons in order to adapt their subject matter to the CLIL methodology.

Regarding the degree of confidence in applying CLIL after taking the course, 48.15% state that they are *confident* and 18.58% state that they are *very confident* in developing learning outcomes for both language and subject matter. If we consider the sum of these two statements, over 65% of the participants perceive CLIL as an optimal methodology to teach both content and language. The participants' confidence to provide multimodal input and distributing it evenly across their CLIL units increased to levels of *very confident* (48.15%) and *confident* (40.74%), adding up to nearly 90%. Self-confidence in being able to incline the balance towards student-centred learning rather than teacher-centred learning was another of the attributes where the course had helped participants gain assertiveness: *very confident* (33.33%) and *confident* (51.85%), adding up to a total of 85% of the participants. Additionally, 77.8% of the respondents claimed that the introductory course on CLIL and the use of Clilstore had changed their views on teacher-centred versus learner-centred learning and provided the following explanations:

- “Students should be more involved in their learning”.
- “Yes, I will try to apply more student-oriented education”.
- “In Italy the widespread methodology is teacher-centred; so I have learnt different ways of teaching and, in the end, a dramatic change in the way of thinking and planning lessons”.
- “The tools that I have learnt are very interesting, but it is necessary [to] employ a lot of time to build the lesson, because in my case there are very few existing materials. And it is a huge effort to create the material in English”.
- “Using these tools changed my views on learning-centered approaches”.

As we can see, in a number of cases, the course encouraged teachers to change their focus from teaching to learning and their will to incorporate methods to support the learner and increase their involvement in the process, despite the amount of work that creating *ad-hoc* materials may imply in areas where there are less ready-made resources available.

Regarding how reliant CLIL is on ICT, again the views of the respondents coincided considerably. 29.63% stated that CLIL relied *very strongly* and 55.56%, *strongly*, adding up to over 85% of the group. 11.11% were *neutral* and 3.70% *disagreed* entirely and thought that CLIL could be put into practice independently of ICT. One of the respondents commented that CLIL “is not necessarily reliant [on ICT]. There are lots of things that can be done without it, especially Wordlink as it just helps to understand a text, it doesn’t teach understanding skills”.

When asked about the usefulness of the Clilstore system to design units for CLIL in their own subject, nearly 85% of the respondents rated it as *high* or *very high*.

One of the general remarks –which can be summarised in the following opinion: “It is necessary to have a global planning to state the main principles and practice[s] of CLIL in Europe. It is not a good idea that each teacher uses CLIL as they consider the best way”– points, in our opinion, to one of the key factors that can cause teachers to hesitate putting CLIL into practice, i.e. the fact that subject specialists need well-developed methodological guidelines to support the implementation of CLIL in the classroom and the backing of language specialists to provide support in terms of foreign language learning.

#### **4. Conclusions**

Evidence drawn from the post teacher training course questionnaire leads us to believe that a) teachers are willing to adopt CLIL in their classes and to collaborate with language specialists to put this dual-focus methodology into practice, and b) Clilstore is perceived as a useful tool in order to create, publish and deliver learning materials that aid in conducting dual-focused teaching by supporting content learning as well as foreign language learning.

#### **Reference**

Gimeno, A., Ó Dónaill, C., & Zygmantaite, R. (2013). *Clilstore Guidebook for Teachers*. Retrieved from <http://www.languages.dk/archive/tools/guides/ClilstoreGuidebook.pdf>